REMARKS

The pending claims have been finally rejected for indefiniteness and/or lack of enablement. In light of the amendments herein and the remarks below, these rejections are respectfully traversed and reconsideration is requested. Specifically, claims 245, 268, 276 and 279-282 are newly cancelled. Claims 217, 266, 272, 275, 277 and 278 have been amended. Thus, the pending claims are now 217-219, 221, 225, 238, 244, 266-267, 269, 272, 275 and 277-278.

Applicants' cancellation of certain rejected claims is not to be construed as an admission that the Examiner's rejections were proper. The Applicants continue to believe that the rejected claims are described in and enabled by the specification as previously argued. The rejected claims have been cancelled for the sole purpose of advancing the case to allowance. The Applicants reserve the right to file a continuing application to continue the prosecution of the rejected claims.

Independent claim 217 relates to a method for inhibiting growth of a cancer cell that involves, in one aspect, administering an effective amount of a polypeptide comprising a cytoplasmic binding domain of a β integrin subunit for a MAP kinase. The binding domain is defined as incorporating an amino

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acid linker sequence that links opposite end regions of the binding domain together and that is non-essential for binding of the MAP kinase to the β integrin subunit. Alternatively, a modified polypeptide can be used that has greater than 60% amino acid sequence homology with the binding domain. The β integrin subunit is further defined as being selected from the group consisting of β3, β5 and β6 while the MAP kinase is limited to being ERK2. It is submitted the amendments proposed to claim 217 make this unambiguously clear.

Support for the binding domain of the β integrin subunit incorporating a linker sequence is found in the specification at, for instance, page 24, line 19 to page 25, line 9. The Examiner's attention is also drawn to the specification (page 87, lines 6-12) relating to the 10-mer peptide RSKAKNPLYR (i.e., a modified peptide) provided by the deletion of the linker sequence WQTGT from the 15-mer peptide RSKAKWQTGNPLYR comprising the binding domain of β6 for ERK2. Please also see the disclosure at page 25, lines 3-9. Support for the reference to the modified amino acid sequence having greater than 60% amino acid sequence homology with the binding domain is found in the specification at page 25, lines 14-19 and specifically page 25, line 18. Attention is also drawn to page 12, line 19 to page 13, line 11.

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With regard to the Examiner's comments that the specification fails to provide support for polypeptides with a length up to 20 amino acids as defined in claim 277 or from 10-15 amino acids as defined in claim 278, Applicants respectfully disagree that the ranges cited at page 49, lines 19-24 and further disclosed in the specification as noted previously do not provide an adequate written description for that subject matter. However, for the purpose of moving this application towards allowance, claim 277 has been amended to define the polypeptide as being "greater than 5 amino acids and up to 20 amino acids in length." Support for this claim language is found in the specification as noted above as well as, for instance, at page 86, lines 11 to 12 of the specification as published. In particular, that disclosure states that negligible binding to ERK2 by the 5-mer β6 peptide RSKAK was observed. In contrast, significant binding of ERK2 to the 15-mer RSKAKWQTGTNPLYR fragment of β6 was obtained (see, e.g., page 86, lines 14-17). Similarly, significant binding to the 10-mer peptide RSKAKNPLYR (obtained by the deletion of the linker sequence WQTGT from the above 15-mer peptide) was obtained. Claim 278 has been amended to reflect this specific disclosure.

In response to the lack of enablement objections raised by the Examiner for claims "as drawn to the prophylaxis of cancer,"

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the Applicants submit, with respect, that the Examiner appears not to have observed the Applicants' amendment in the previous response so that claims 266-269 are drawn specifically to a "method for *treatment* of cancer in a mammal" and no longer to *prophylaxis and treatment*. Furthermore, in this paper, Applicants have amended the portion of claim 266 directed to the administered polypeptide so that it directly tracks the claim amendments in the corresponding portion of claim 217 and submit that the same arguments apply here as to definitenes and enablement as were given above. Furthermore, Applicants again assert that these amendments did not change the scope of claim 266 and the claims dependent thereon as the term "prophylaxis" was intended to have its ordinary definition of relating to a measure designed to preserve health and prevent the spread of disease, as indicated in the specification.

At page 5 of the Office Action, the Examiner continues to assert that the specification does not teach a means for the delivery of polypeptides to the site of treatment and that there is no objective evidence in the specification that carrier peptides such as Penetratin can transport the anti-cancer polypeptides to the location in the cell where the "MAP kinase is present." In response, the Examiner is referred to the Examples,

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which show unambiguously that treatment of cancer cells in accordance with the methods of the claimed invention resulted in the killing of cancer cells. This clearly establishes that the polypeptides were able to gain entry into the cells whereby they exerted their effect. The previously submitted statutory declaration of co-inventor Michael Agrez also establishes that administration of polypeptides in animal models, and as taught by the instant specification, was able to inhibit growth and proliferation of cancer cells.

With regard to the Examiner's comments at page 6 of the Office Action that the claims are "broadly drawn to methods which encompass the binding of any cytoplasmic fragment of an integrin beta subunit with any MAP kinase," Applicants again point out that the claims as amended specifically require that the β integrin subunit be selected from the group consisting of β3, β5 and β6, and that the MAP kinase be ERK2.

With regard to the Examiner's comments at page 7 of the Office Action to the effect that the specification does not enable the provision of a polypeptide comprising a modified amino acid sequence having the required sequence identity with the binding domain of the β integrin subunit as now claimed, it appears those comments are based on the Examiner's view that the claims allow

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for binding of the polypeptide to any MAP kinase. As discussed above, this is not the case and Applicants submit that this objection also has no basis. Similarly, it appears that the "lack of written description" objection raised at page 8 of the Official Action is also based on the Examiner's assertion that the claims allow for the binding of the polypeptide to any MAP kinase. As discussed above, these objections have no basis in the currently pending claims.

Thus, Applicants submit that all claims are in condition for allowance and such action is respectfully requested.

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The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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